

# Louisiana Delisting for Oil and Grease for the Mermentau and Vermilion-Teche River Basins.

3/29/01

## OVERVIEW

This document outlines the strategy and investigative methodology used for determining whether particular segments of the Mermentau and Vermilion-Teche River Basins should be delisted from Court Ordered §303 (d) List for the State of Louisiana, or have a TMDL prepared.

## STRATEGY

Although the primary investigative tool used was visual inspections, the investigative strategy employed supplemented these inspections with water column sample data. Visual inspections were performed by both the EPA Region 6 Office, and the Louisiana Department of Environmental Quality, and the water column sample data was collected by EPA. Since it was impractical to inspect each segment on a foot-by-foot basis, a conservative approach of inspecting the most likely areas expected to result in shows for oil and grease was used (e.g., boating facilities, developed areas, downstream of dischargers with oil and grease limitations). In addition, when an oil show of any kind was present it was sampled directly, which resulted in additional conservatism.

Each segment was inspected by the Louisiana Department of Environmental Quality (DEQ) at least three times, with some segments receiving more inspections. For each inspection, the DEQ inspector completed a form documenting the particular segment involved, its location, the date and time of the inspection, the name of the inspector(s), and the results of the inspection. The results were catalogued as either a "yes" or "no" to the question: "Are free floating grease or emulsified oils present?"

EPA also inspected each segment three times, with the exception of segment 061102, Intracoastal Waterway. Because of the lack of access, the approach used for this segment was to inspect all waterways leading into this segment. For each inspection, the EPA inspector completed a form documenting the particular segment involved, its location, the date and time of the inspection, the name of the inspector(s), the weather conditions, water odors, the degree of turbidity, and the results of the inspection. If the inspection was positive for water surface oils, these oils were catalogued as being either "slick," "sheen," "globs," "flecks," or "other," the last being further explained.

## METHODOLOGY

The first step in the investigative methodology was to note and describe any oil show present. The standard for these inspections was taken from Title 33 of the Louisiana Department of Environmental Quality, Part IX, Chapter 11, §1113(B)(6):

"Oil and Grease. Free or floating oil or grease shall not be present in quantities large

enough to interfere with the designated uses, nor shall emulsified oil be present in quantities large enough to interfere with the designated uses."

For the purposes of this exercise, "quantities large enough to interfere with the designated uses," as defined above, was primarily determined visually and measured in feet or yards and not inches. In general, a few small spots or ribbons (small streaks, usually near the shoreline), measured on a scale of inches, were not deemed to be present in quantities large enough to interfere with the designated use of that water body. Next, in all but one case, water column sample data was used to establish the relative concentration of oil and grease in the water column. A total of 78 total water column samples were analyzed for oil and grease. It should be noted that there is no numeric benchmark for determining if a waterbody is meeting or not meeting the oil and grease narrative standard. The fact that EPA collected water column data should not be interpreted as an indication that such data is necessary to evaluate impairment due to oil and grease. Nevertheless, this water column data supports EPA's proposal to delist several water segments currently on the state's §303(d) list for impairment due to oil and grease.

## FINDINGS

With regard to the DEQ inspections, only one segment was found to have any surface oils. This was Segment 060902, Bayou Carlin, which exhibited a "small spotty sheen from boat bilge" on 12/12/00. EPA also documented a sheen of limited extent on this date. This sheen was not determined to be present in quantities large enough to interfere with the designated use of that water body. EPA collected a water column sample from that event which was negative for oil and grease. All other segments were negative for surface oils on all inspections.

With regard to the EPA inspections, Segment 060204, Bayou Courtableau, exhibited a small sheen on 12/13/00. Water column samples collected at this event yielded oil and grease levels greater than the general sample population. In order to be conservative, EPA determined that the results of these samples interfered with the designated use of that water body, in accordance with the above stated standard. Based on this information, it is proposed that this segment not be delisted. Four other segments exhibited minor surface oil shows that were not deemed to interfere with the designated uses of those water bodies. For instance, considering all other segments, EPA recorded only one other visible sheen. This was noted at Boston Canal on 1/30/01. Water column sample data were negative for oil and grease, indicating that the cause of the sheen was not oil and grease. Although EPA did not determine the cause of the sheen in that instance, it is not unusual for a sheen to occur due to the decomposition of organic plant matter.

Therefore, with the exception of Bayou Courtableau, all other segments did not exhibit oil shows in quantities large enough to interfere with the designated uses of those water bodies. Therefore, it is proposed that they be delisted for oil and grease. A more detailed, waterbody-by-waterbody summary of the delisting proposal is attached as the document entitled "Attachment A - Louisiana Delisting for Oil and Grease for the Mermentau and Vermilion-Teche River Basins."